Response to Letter Regarding Article, “Does Abnormal Circadian Blood Pressure Pattern Really Matter in Patients With Transient Ischemic Attack or Minor Stroke?”

We thank Castilla-Guerra and Fernandez-Moreno1 for their interest in our study and their comments regarding our recently published article on circadian blood pressure (BP) patterns in patients with transient ischemic attack or minor stroke. We provide a response to the 2 limitations raised in their letter.

We agree that BP values and patterns could be different between acute and subacute phases given the known BP changes after stroke.2 In our group, patients were recruited within 7 days after their initial event, and the timing from onset to ambulatory monitoring was also recorded. There were 45 patients (59.2%) whose ambulatory BP were monitored within first 48 hours from symptom onset, and when their data were compared with that of the other patients, we found similar distributions of BP patterns with no statistically significant difference: 33.3% dipper, 48.9% nondipper, 15.6% reverse dipper, 2.2% extreme dipper versus 29% dipper, 35.5% nondipper, 25.8% reverse dipper, 9.7% extreme dipper (P=0.3; Zhang et al, unpublished data, 2014).

The percentage of hypertensive participants found in our control group was similar to the general population as reported by Cadilhac et al3 from the Know Your Numbers Program in Australia, with 43% of 59,817 registrants (63% women, aged >55 years, 55%) obtained during 3 years having BP ≥140/90 mmHg. The distribution of systolic BP patterns in our control group was similar to the distribution reported from other nonstroke populations. For example, De la Sierra et al4 on behalf of the Spanish Society of Hypertension Ambulatory Blood Pressure Monitoring Registry Investigators reported 41% and 53% rates of abnormal dipping in the treated hypertensives (mean age, 60 years) and untreated patients (mean age, 53.2 years). Boggia et al5 reported 50.3% dippers, 23.5% nondippers, 20.3% extreme dippers, and 5.9% reverse dippers in the International Database on Ambulatory blood pressure monitoring in relation to Cardiovascular Outcomes (IDACO) study with 7458 participants (mean age, 56.8 years), among whom 46% had hypertension. Moreover, Hermida et al6 reported >20% of normotensive adults have a nondipper BP profile. Age differences between our study control group and other normative samples should also be taken into account given a reported relationship between age and nondipping status.7 The sample size may also have provided some imprecision. Nevertheless, we consider our control group to be a representative age- and sex-matched nonstroke population. Finally, we concur that further research in this area should be undertaken.

Disclosures

None.

References

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